



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/020,668	12/12/2001	Hiroshi Kyusojin	09792909-5287	1422

26263 7590 03/20/2006

SONNENSCHN NATH & ROSENTHAL LLP
P.O. BOX 061080
WACKER DRIVE STATION, SEARS TOWER
CHICAGO, IL 60606-1080

EXAMINER

FERRIS, DERRICK W

ART UNIT PAPER NUMBER

2663

DATE MAILED: 03/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/020,668

Applicant(s)

KYUSOJIN, HIROSHI

Examiner

Derrick W. Ferris

Art Unit

2663

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-12 and 14-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,6-12,14,16 and 17 is/are rejected.
- 7) ☒ Claim(s) 5 and 15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 March 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. This Office action is in response to applicant's paper filed 2/2/2006. **Claims** 1, 2, 4-12, and 14-17 as amended are still in consideration for this application. Applicant has amended claims 1 and 11.
2. Examiner **withdraws** the objection to the specification and thanks applicant for correcting the title.
3. Examiner **withdraws** the anticipated rejection to *McAlpine*. In particular, the rejection is withdrawn based on applicant's claim amendment. However, please note the following rejection is made non-final in view of newly found prior art not previously cited.

Drawings

4. Figures 9 and 10 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

6. **Claim 1, 2, 6, 8, 9-12, 16 and 17** are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,047,000 A to *Tsang et al.* ("*Tsang*").

As to **claim 1**, a packet transmission device is taught by *Tsang* as a non-work-conserving algorithm. In particular, each flow is taught as a stream where a bandwidth-guaranteed flow is one of the streams based on the guaranteed reserved bandwidth for that stream. As such, with respect to time deciding means for determining transmission of timing of packets of said bandwidth-guaranteed flow, see e.g., a credit K that is allocated per certain timing interval (i.e., timing deciding means), see e.g., column 7, lines 34-39. With respect to packet transmitting means for transmitting leading packet data in a packet queue according to accumulation capacity of tokens at a timing set by said timing deciding means, see e.g., the algorithm at column 7, lines 40-59 and column 8, line 66 – column 9, line 24. In particular, each stream is allocated a certain credits, K, K is serviced when K is greater than the length of the packet (e.g., K is not equal to zero), see e.g., column 3, lines 55-64. Finally, with respect to wherein said packet transmitting

means subtract the size of said transmitting packet from said accumulation capacity of said tokens, following transmitting said packet data at the head of said packet queue, see e.g., step 7 at column 7, lines 51-59 where K is decremented with each servicing of a queue. Also see end of claim 1.

As to **claim 2**, see e.g., column 3, lines 56-65 K is greater than zero for a serviced queue.

As to **claim 6**, each packet queue is serviced based on the guaranteed reserved bandwidth, see e.g., column 5, lines 36-50.

As to **claim 8**, see e.g., column 3, lines 39-55 where each stream is assigned its own queue.

As to **claims 9-10**, see e.g., column 4, lines 25-37 where IP is variable and ATM is fixed. Also see preambles claims 1 and 5 of the reference respectively.

As to **claim 11**, see similar rejection to claim 1. TDM is further taught with respect to a time slot.

As to **claim 12**, see similar rejection to claim 2.

As to **claim 16**, see similar rejection to claim 6.

As to **claim 17**, see similar rejection to claim 8.

7. **Claim 1, 2, 4, 6-8, 10-12, 14, 16 and 17** are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,882,623 B1 to *Goren et al.* ("*Goren*").

As to **claim 1**, a packet transmission device is taught by *Goren* as the device shown in figure 1 with emphasis placed on the stream selector 50. In particular, each flow is taught as a stream where a bandwidth-guaranteed flow is one of the streams based

on the guaranteed reserved bandwidth for that stream, see e.g., column 2, lines 25-34 and column 4, lines 1-13. As such, with respect to time deciding means for determining transmission of timing of packets of said bandwidth-guaranteed flow, see e.g., the system clock where tokens are added and removed periodically based on the clock at update times, see e.g., column 7, lines 4-35. With respect to packet transmitting means for transmitting leading packet data in a packet queue according to accumulation capacity of tokens at a timing set by said timing deciding means, see e.g., column 7, lines 14-35 where a packet is eligible for transmission if a predetermined value for the token counter is reached. Finally, with respect to wherein said packet transmitting means subtract the size of said transmitting packet from said accumulation capacity of said tokens, following transmitting said packet data at the head of said packet queue, see e.g., column 7, lines 33-35.

As to **claim 2**, the token counter must reach a predetermined value before transmitting a packet which is greater than zero, see e.g., column 7, lines 4-35.

As to **claim 4**, see e.g., column 4, lines 1-14 where best effort traffic and guaranteed traffic is taught. The traffic is further transmitted according to its budget category.

As to **claim 6**, the values are predetermined, see e.g., column 7, lines 14-35.

As to **claim 7**, the timer is the update time, see e.g., column 7, lines 14-35.

As to **claim 8**, see e.g., QoS queues 18, 22, and 26 in figure 1 as queuing means.

As to **claim 10**, see the packet length is determined, the reference teaches variable length packets. See also column 10, lines 5-17.

Art Unit: 2663

As to **claim 11**, see similar rejection to claim 1. With respect to TDM, see e.g., figure 1 where the signals are further (time) multiplexed via the multiplexers such as stream selector 50.

As to **claim 12**, see similar rejection to claim 2.

As to **claim 14**, see similar rejection to claim 2.

As to **claim 16**, see similar rejection to claim 6.

As to **claim 17**, see similar rejection to claim 8.

Allowable Subject Matter

8. **Claims 5 and 15** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Derrick W. Ferris whose telephone number is (571) 272-3123. The examiner can normally be reached on M-F 9 A.M. - 4:30 P.M. E.S.T.

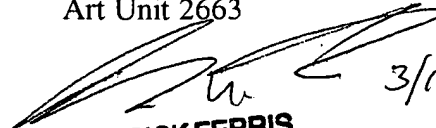
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on (571)272-3134. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2663

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


DWF

Derrick W. Ferris
Examiner
Art Unit 2663

 3/14/06
DERRICK FERRIS
PATENT EXAMINER